

## **Plasma Mirrors**

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### **ABSTRACT**

We show experimentally and theoretically that plasmas created by a sufficiently short ( $<500$  fs) intense ( $10^{14}$ - $10^{15}$  W/cm<sup>2</sup>) laser pulse on the surface of dielectric material act as nearly perfect mirrors: reflecting up to 90% of the incident radiation with a wavefront quality equal to that of the initial solid surface.

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